

NASA DEVELOP National Program

2014 Summer Term Proposed Projects *(tentative, subject to change)*

NASA CENTER LOCATIONS

Ames Research Center - Moffett Field, CA

- American Samoa Oceans: Monitoring Coral Reef Ecosystem Health in American Samoa using NASA Earth Observations
- Great Basin Climate: Evaluating Drought Conditions and Vegetative Health with Climate Change in the Great Basin using the Nevada Climate-Ecohydrology Assessment Network (NevCAN)
- Sierra Nevada Eco Forecasting III: Sierra Nevada Decision Support System for Monitoring, Reporting, and Forecasting Ecological Conditions

Goddard Space Flight Center - Greenbelt, MD

- Argentina Oceans: Using NASA EOS to Map Threats to the Southern Right Whale
- Global Water Resources: Computing Baseline Water Budget Statistics using Remotely Sensed Data
- Mekong Delta Disasters II: Utilizing NASA Earth Observations to Enhance Flood Impact Products and Mitigation in the Lower Mekong Water Basin

Jet Propulsion Laboratory - Pasadena, CA

- Atlantic Climate: Utilizing Spaceborne and Airborne Sensors to Monitor the Health of Coastal Wetlands Along the Atlantic Coast
- California Oceans & Water Resources: Remote Sensing Detection of Wastewater Plumes to Assess Public Water Quality in Los Angeles and Orange Counties
- Pasadena Health & AQ: Utilizing Remotely Sensed Atmospheric Infrared Sounding Data for Near-Real-Time Air Quality Applications

Langley Research Center - Hampton, VA

- Chile Disasters: Monitoring Wildfires and Rangeland with NASA Earth Observations for Enhanced Decision Support in Chile
- East Coast Eco Forecasting: Utilizing NASA Earth Observations and Ground-Based Field Studies to Predict Population Changes and their Implications for East Coast Avian Conservation
- Great Plains Agriculture III: Utilizing NASA Earth Observations to Monitor Drought Conditions for Enhancement of Rangeland Management
- Lake Champlain Water Resources III: Utilizing NASA Earth Observations to Forecast Algal Blooms in Lake Champlain for Enhanced Water Resource Management
- Niger Agriculture: Assessing Irrigation Potential in the Maradi, Zinder, and Tahoua Regions of Niger for Infrastructure Construction Decision-Making
- Northeast US Agriculture II: Examining the Potential Impacts of Climate Change on Apple Production within the Northeastern United States
- Texas Health & AQ: Evaluating the Application of DISCOVER-AQ Data and Models to Monitor Aerosol Extinction, Optical Thickness, and PM 2.5 Concentration in Houston, Texas

Marshall Space Flight Center - Huntsville, AL

- Andes Disasters: Utilizing NASA Earth Observations to Model Volcanic Hazard Risk Levels Areas Surrounding Copahue Volcano in the Andes Mountain
- Shelby County Health & AQ: Utilizing NASA Earth Observations to Correlate Crime Rates to Environmental Factors in Shelby County, TN for Crime Prevention Efforts

- Southeast US Water II: Development of an Alternative Water Withdraw Monitoring System for the USGS using NASA Earth Observation to Aid in Irrigation Monitoring in the Southeastern United

Stennis Space Center - Stennis, MS

- California Disasters: Assessing the Effectiveness of Simulated HypsIRI Data for Use in USDA Forest Service Post-fire Vegetation Assessment and Decision Support
- Louisiana Eco: Utilizing NASA Earth Observations to Identify Suitable Reforestation Sites in Louisiana's Coastal Parishes
- West Africa Energy: Utilizing NASA Earth Observations to Propose Flared Gas as an Energy Source Alternative to Deforestation and Wood Fuel Burning in West Africa

REGIONAL & ACADEMIC LOCATIONS

USGS Colorado State University - Fort Collins, CO

- Alaska Eco Forecasting: Modeling Current and Future Invasion Vulnerability for Critical Habitat in Interior Alaska: Applying Novel Modeling Techniques for Invasive Species Risk Assessment in the Yukon Flats National Wildlife Refuge
- Ethiopia Water Resources II: Utilizing Landsat Imagery and Statistical Models for Mapping Headwater Wetlands in Ethiopia
- North Central US Climate II: Regional Analysis of the North Central Climate Science Center's Land Surface Phenology Validation Network to Integrate Field and Tower Phenology Observations with Regional Climate and Biogeophysical Information

University of Georgia - Athens, GA

- Miami-Dade County Eco Forecasting II: Utilizing NASA Imagery and GIS Modeling for the Design and Implementation of the Miami-Dade Western Greenway
- Georgia Health & AQ: Relating Terrain, Land Use/Land Cover and Weather with Accelerometer and GPS Participant Data to Promote Physical Activity Outdoors
- Georgia Water Resources: Monitoring the Distribution of Phytoplankton and Cyanobacteria in Georgia Inland Waters using NASA's Hyperion Data

Mobile County Health Department - Mobile, AL

- West Africa Energy: Utilizing NASA Earth Observations to Propose Flared Gas as an Energy Source Alternative to Deforestation and Wood Fuel Burning in West Africa
- Southeast Agriculture: Investigating and Mapping the Historical Spread and Current Extent of Cogongrass (*Imperata Cylindrica*) within Alabama and Southeast Region

International Research Institute for Climate & Society - Palisades, NY

- East Africa Health & AQ II: Creating a Flood Forecasting Tool using NASA Earth Observations Built on the Understanding of the Relationship Between Rainfall Extreme Events, Inundation, and Epidemic Dynamics in East Africa

Wise County Clerk of Court's Office - Wise, VA

- Rwanda Agriculture II: Utilizing NASA Earth Observations to Map Crops and Estimate Crop Yield in Western Rwanda
- Virginia Eco II: Using NASA Earth Observing Satellites and Statistical Model Analysis to Monitor Habitat Rehabilitation in Virginia's Reclaimed Mining Lands